

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/03977

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04M19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04R H03G H04M G10L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 023 513 A (CASE ELIOT M) 8 February 2000 (2000-02-08)	1-4,6,7, 10,14
Y	column 1, line 29 - line 41	8,9,13
A	column 3, line 25 - line 63 column 5, line 32 - line 43 ---	5,11,12
Y	EP 1 161 076 A (KONINKL PHILIPS ELECTRONICS NV) 5 December 2001 (2001-12-05)	8,9,13
A	column 3, line 7 - line 38 column 3, line 47 - column 4, line 21 column 4, line 32 - line 46 ---	1-7, 10-12,14
	--- -/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

30 June 2003

Date of mailing of the international search report

07/07/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Sorrentino, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/03977

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 994 464 A (KONINKL PHILIPS ELECTRONICS NV) 19 April 2000 (2000-04-19) column 3, line 4 - line 25 column 3, line 43 - column 4, line 2 column 4, line 11 - line 40	1,2,4, 10,12,14 3,5-9, 11,13
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 06, 30 June 1997 (1997-06-30) & JP 09 055634 A (YAMAHA CORP), 25 February 1997 (1997-02-25) abstract	1,2,4,12
A	US 6 215 879 B1 (DEMPSEY MORGAN JAMES) 10 April 2001 (2001-04-10) abstract; figure 1	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/03977

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6023513	A	08-02-2000	US 6335973 B1	01-01-2002
EP 1161076	A	05-12-2001	FR 2807255 A1	05-10-2001
			CN 1324200 A	28-11-2001
			EP 1161076 A1	05-12-2001
			JP 2002006845 A	11-01-2002
			US 2001034252 A1	25-10-2001
EP 0994464	A	19-04-2000	CN 1254221 A	24-05-2000
			EP 0994464 A1	19-04-2000
			JP 2000172300 A	23-06-2000
			KR 2000028984 A	25-05-2000
JP 09055634	A	25-02-1997	NONE	
US 6215879	B1	10-04-2001	NONE	